

REMARKS

After entry of this amendment, claims 1-12, 14-26, and 28-35 remain pending. In the present Office Action, claims 1, 7, 10, 15, 18, 19, 24 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Birrittella et al., U.S. Patent No. 5,797,035 ("Birrittella") in view of Scott et al., U.S. Patent No. 5,748,900 ("Scott"). Applicants respectfully traverse this rejection and request reconsideration. Claims 2-6, 8-9, 11-14, 16-17, 20-23, 25-28, and 30-31 were objected to as being dependent from a rejected base claim but would be allowable if rewritten in independent form.

Claims 10-12, 14-17, 24-26 and 28-31

Applicants have rewritten claim 10 to include the features of claim 13. Accordingly, claim 10 is in condition for allowance. Claims 11-12 and 14-17, being dependent from claim 10, are similarly in condition for allowance.

Applicants have rewritten claim 24 to include the features of claim 27. Accordingly, claim 24 is in condition for allowance. Claims 25-26 and 28-31, being dependent from claim 24, are similarly in condition for allowance.

Claims 1-9

Applicants respectfully submit that each of claims 1-9 recites a combination of features not taught or suggested in Birrittella and Scott. For example, claim 1 recites a combination of features including: "said first node comprising a plurality of control packet buffers, each of said plurality of control packet buffers assigned to a different one of a plurality of virtual channels; and storing said first response packet in a response buffer which is one of said plurality of control packet buffers, ... wherein said first response packet is a response to a first control packet belonging to one of said at least two additional virtual channels, and wherein said storing said first response packet in said response buffer is independent of which one of said at least two additional virtual channels said first control packet belongs to".

The present Office Action alleges that "storing said first response packet in said

response buffer is independent of which one of said at least two additional virtual channels said first control packet belongs to" is taught is Scott at col. 8, lines 9-17. Applicants respectfully disagree. Scott teaches "Buffers 260, 270, 280 and 290 are partitioned by setting bitmasks stored in designated memory mapped registers (MMRs) 295. The set of buffers usable by each virtual channel can overlap in arbitrary ways; some buffers may be dedicated to a single virtual channel 250, some buffers may be shared by a set of virtual channels 250, and some buffers may be shared by all virtual channels 250. However, at least one buffer must be reserved for response packets. This requirement is in order to avoid deadlock." (Scott, col. 8, lines 9-17) While Scott mentions reserving a buffer for response packets, this does not teach or suggest "said first node comprising a plurality of control packet buffers, each of said plurality of control packet buffers assigned to a different one of a plurality of virtual channels; and storing said first response packet in a response buffer which is one of said plurality of control packet buffers, ... wherein said first response packet is a response to a first control packet belonging to one of said at least two additional virtual channels, and wherein said storing said first response packet in said response buffer is independent of which one of said at least two additional virtual channels said first control packet belongs to" as recited in claim 1.

Instead, Scott teaches a set of four virtual channels: "a read request channel (VC0) 250.0, a write request channel (VC1) 250.1, a channel for messages and read responses (VC2) 250.2 and a channel for write responses (VC3) 250.3" (Scott, col. 7, lines 61-64). Thus, a read request in VC0 results in a read response in VC2, and a write request in VC1 results in a write response in VC3. Therefore, the response virtual channel is dependent on which virtual channel the request belongs to. In some cases, Scott's read response and write response virtual channels may share a response buffer (e.g. see Figs. 5A-5B). However, this still does not teach or suggest "said first node comprising a plurality of control packet buffers, each of said plurality of control packet buffers assigned to a different one of a plurality of virtual channels; and storing said first response packet in a response buffer which is one of said plurality of control packet buffers, ... wherein said first response packet is a response to a first control packet

belonging to one of said at least two additional virtual channels, and wherein said storing said first response packet in said response buffer is independent of which one of said at least two additional virtual channels said first control packet belongs to" as recited in claim 1. Furthermore, Birrittella in combination with Scott does not teach or suggest the above highlighted combination of features.

For at least all of the above stated reasons, Applicants submit that claim 1 is patentable over Birrittella in view of Scott. Claims 2-9 being dependent from claim 1, are similarly patentable over Birrittella in view of Scott for at least the above stated reasons. Each of claims 2-9 recite additional combinations of features not taught or suggested in Birrittella in view of Scott.

Claims 18-23

Applicants respectfully submit that each of claims 18-23 recite combinations of features not taught or suggested in Birrittella in view of Scott. For example, claim 18 recites a combination of features including: "transmitting said first response packet from said first node using a response virtual channel of said plurality of virtual channels, said transmitting independent of which one of said plurality of virtual channels is said first virtual channel to which said first command packet belongs".

The present Office Action alleges that the above highlighted features are taught in Scott. However, as highlighted above with regard to claim 1, Scott teaches a set of four virtual channels: "a read request channel (VC0) 250.0, a write request channel (VC1) 250.1, a channel for messages and read responses (VC2) 250.2 and a channel for write responses (VC3) 250.3" (Scott, col. 7, lines 61-64). Thus, a read request in VC0 results in a read response in VC2, and a write request in VC1 results in a write response in VC3. Therefore, the response virtual channel is dependent on which virtual channel the request belongs to. In some cases, Scott's read response and write response virtual channels may share a response buffer (e.g. see Figs. 5A-5B). However, this has nothing to do with the above highlighted features of claim 18.

For at least the above stated reasons, Applicants respectfully submit that claim 18 is patentable over Birrittella in view of Scott.

Claim 19 recites a combination of features including "a first node configured to transmit a first command packet in a first virtual channel of a plurality of virtual channels; and a second node coupled to receive said first command packet, wherein said second node is configured to generate a first response packet in response to said first command packet and is further configured to transmit said first response packet using a response virtual channel of said plurality of virtual channels independent of which one of said plurality of virtual channels is said first virtual channel". The teachings of Birrittella and Scott, highlighted above, do not teach or suggest the above highlighted combination of features, either. For at least the above stated reasons, Applicants submit that claim 19 is patentable over Birrittella in view of Scott. Claims 20-23, being dependent from claim 19, are similarly patentable over Birrittella in view of Scott for at least the above stated reasons. Each of claims 20-23 recites additional combinations of features not taught or suggested in Birrittella in view of Scott.

New Claims 32-35

Applicants respectfully submit that new claims 32-35 recite combinations of features not taught or suggested in Birrittella in view of Scott. For example, claim 32 recites a combination of features including: "a node coupled to receive a first command packet in one of a plurality of virtual channels, wherein the node is configured to generate a first response packet in response to the first command packet and is further configured to transmit the first response packet using a response virtual channel of the plurality of virtual channels independent of which one of the plurality of virtual channels that the first command packet was received in". Claims 33-35 recite additional combinations of features not taught or suggested in Birrittella in view of Scott.

CONCLUSION

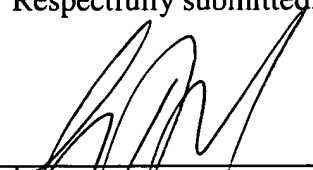
Applicants submit that the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5500-46201/LJM.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Request for Approval of Drawing Changes
- ☐ Notice of Change of Address
- ☐ Marked-up Copy of Amended Claims
- ☐ Marked-up Copy of Amended Paragraphs
- ☒ Fee Authorization Form authorizing a deposit account debit in the amount of \$120 for fees (\$36 for two excess claims over 20, \$84 for one excess independent claim).
- ☐ Other:

Respectfully submitted,



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